

AUG 4 1925

# SIGMA XI QUARTERLY

Vol. XII

SEPTEMBER, 1924

No. 3



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## OFFICERS OF SIGMA XI

President.....	F. K. RICHTMYER Cornell University, Ithaca, N. Y.
Secretary.....	EDWARD ELLERY Union College, Schenectady, N. Y.
Treasurer.....	GEORGE B. PEGRAM Columbia University, New York City

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## EXECUTIVE COMMITTEE

CARL H. EIGENMANN.....	Indiana University, Bloomington, Ind. <i>Term expires January, 1925</i>
GEORGE W. STEWART.....	University of Iowa, Iowa City, Iowa <i>Term expires January, 1926</i>
CLARENCE E. MCCLUNG.....	University of Pennsylvania, Philadelphia, Pa. <i>Term expires January, 1927</i>
VERNON KELLOGG.....	National Research Council, Washington, D. C. <i>Term expires January, 1928</i>
HENRY B. WARD.....	University of Illinois, Ill. <i>Term expires January, 1929</i>
C. E. DAVIES.....	New York, Alumni Representative <i>Term expires January, 1925</i>

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# SIGMA XI QUARTERLY

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## EDITORIAL COMMITTEE

FLOYD KAREER RICHTMYER  
EDWIN EMERY SLOSSON

HENRY BALDWIN WARD  
EDWARD ELLERY

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VOL. XII

SEPTEMBER, 1924

No. 3

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## EDITORIALS

The Annual Convention of Sigma Xi will be held in Washington, D. C., December 30, in connection with the meetings of the American Association for the Advancement of Science. The program is as follows:

2:30 P.M. Business Session

6:00 P.M. Annual Dinner

8:45 P.M. Third Annual Address given under the joint auspices of the Association and Sigma Xi. Speaker: Dr. Frederick F. Russell. Topic: "War on Diseases, with Special Reference to Malaria and Yellow Fever."

Chapters are urged to send delegates to the convention. The advantages of being represented are many. There is contact with delegates from other chapters. First-hand knowledge of chapter practices is obtained. One gets the sense of solidarity in the organization that can be secured in no other way. There is splendid opportunity to talk with the national officers and to become familiar with the policies and ideals of the society.

Arrange for your delegation now.

\* \* \* \* \*

The next regular meeting of the Executive Committee will be held in Washington December 29. The secretary will be glad to hear from chapter secretaries regarding any matter of policy or chapter activities their respective chapters may desire the committee to consider before the convention. A good way to bring about uniformity in chapter activities and to secure the utmost of benefit

from membership in an important organization like Sigma Xi is to foster freedom of intercourse and discussion between the responsible officers and the various branches. The society numbers now forty-two chapters and ten clubs, widely scattered and with interests covering broad fields. We all need more intimate information of each other's activities and of our national policies.

Use your secretary.

President  
Vice-President  
Secretary  
Treasurer

During

Nov. 1

the American  
Contribution of  
and National

Nov. 2

Army Air

Feb. 2

"Modern

April 1

Reserve

ality,"

April 1

May 1

May 2

Electric

Future,"

JAMES M.

(Univ

PHILIP

HELEN

EDWARD

## CHAPTER REPORTS

### CORNELL

#### OFFICERS FOR 1924-25

President  
Vice-President  
Secretary  
Treasurer

A. H. WRIGHT  
S. L. BOOTHROYD  
H. E. HOWE  
C. C. MURDOCK

During the year meetings were held as follows:

Nov. 12, 1923. Public lecture by Dr. Frank M. Chapman of the American Museum of Natural History, "The Origin and Distribution of Andean Bird Life" (III), Joint Auspices of Sigma Xi and Natl. Acad. of Sciences.

Nov. 22, 1923. Public lecture by Dr. Ford A. Carpenter, of U. S. Army Air Service, "Clouds and Weather," illustrated.

Feb. 21, 1924. Public lecture by Prof. S. L. Boothroyd (Cornell), "Modern Adventures in Astronomy," illustrated.

April 1, 1924. Public lecture by Dr. George W. Crile of Western Reserve University, "Biophysical Laws Governing Surgical Mortality," Joint Auspices, Tompkins County Med. Society.

April 28, 1924. Business meeting for election of members.

May 16, 1924. Initiation and dinner.

May 22, 1924. Public lecture by Dr. Albert W. Hull of General Electric Research Laboratory, "Vacuum Tubes, Present and Future," illustrated.

#### MEMBERS ELECTED

##### FACULTY

JAMES MORGAN SHERMAN, B.S. (State College, N. C., 1911), M.S. (Univ. of Wisc., 1912), Ph.D. (Univ. of Wisc., 1915)

*Dairy Industry*

##### CLASS OF 1924

PHILIP DALTON

*Physics*

HELEN KING HODSON, A.B. (Cornell, Feb., 1924)

EDWARD WESLEY HUGHES

*Chemistry*

THEOPHILUS PARSONS, JR.

*Grasselli Undergraduate Scholar in Chemistry*

THEODORE GEORGE ROEHNER, B.Chem. (Cornell, Feb., 1924)

ROMULUS S. VON HAZMBURG

*Chemistry*

## GRADUATE STUDENTS

TIGHT  
BOU*Entomology and Zoology*

JAMES EDWARD KNOTT, B.S. (R. I. State College, 1920)

*Botany and Vegetable Gardening*HIDEO KOMURO (Horticultural College of China, 1913) *Botany*PAUL KVAKAN, Engineer in Agr. (Royal Higher Agr. College, Kri  
zevca, Jugoslavia), Ph.D. (Cornell, Feb., 1924) *Plant Breeding*

BARBARA MCCLINTOCK, A.B. (Cornell, 1923)

*Botany*

FLORENCE

JOHN PA

ALLAN G

TAKAYOSI

M.S. (C

DONALD

vard, 1

FRANK V

1921)

FLORENCE MARIE MEARS, A.B. (Goucher College, 1917)

*Mathematics*

JOHN PAUL NAFE, A.B. (Colorado, 1911), Ph.D. (Cornell, 1924)

*Psychology*

ALLAN GOODRICH NEWHALL, B.S. (Univ. of Minnesota, 1918)

HTLY  
UND

*Plant Breeding*

YAKAYOSHI TANAKA, B.S. (Agr. Coll. Wakayama-Keu, Japan),  
M.S. (Cornell, Feb., 1924)

*Entomology and Zoology*

DONALD STUART WELCH, B.S. (Univ. of Maine, 1917), M.A. (Har-  
vard, 1921)

*Plant Pathology*

FRANK WILCOXON, B.S. (Penn. Military, 1917), M.S. (Rutgers,  
1921)

*Chemistry*

THEOPHILUS PARSONS, JR.

*Grasselli Undergraduate Scholar in Chemistry*

THEODORE GEORGE ROEHNER, B.Chem. (Cornell, Feb., 1924)

ROMULUS S. VON HAZMBURG

*Chemistry*

#### GRADUATE STUDENTS

ROSS MILTON BABBITT, B.S. (Huron College, 1920), Assistant in  
Chemistry

*Chemistry*

WILLARD R. BARRETT, B.Chem. (Cornell Univ., 1920)

*Chemistry*

JESSE FREMONT BATEMAN, A.B. (Ohio Univ., 1921)

*Anatomy and Physiology*

LEO BEHR, M.E. (Cornell, 1918)

*Physics*

RAYMOND WILLIAM BELL, B.S. (Cornell, 1920), M.S. (Cornell, 1921)

*Dairy Industry*

RALPH T. K. CORNWELL, B.Chem. (Cornell Univ., 1918)

*Chemistry*

FRANCOIS JEAN DE VILLIERS, M.S. (Univ. of California, 1922)

*Pomology*

PAUL ANDREW DOWNS, B.S. (Stovis, Conn., 1918), M.S. (Cornell,  
1920), Ph.D. (Cornell, 1923)

FREDERIC CHARLES EVANS, M.E. (Cornell, 1919)

*Heat Power Engineering*

MERLE CONRAD GILLIS, B.S. in Agr. (Purdue Univ., 1917)

*Plant Breeding*

WALTER OSCAR GLOYER, A.B. (Wisconsin, 1908-09), M.A. (Wis-  
consin, 1910), Instructor, Geneva Expt. Station

HENRY GEORGE GOOD, B.S. (Univ. of California, 1920), M.A. (Cor-  
nell, 1923), Assistant in Entomology

*Entomology and Zoology*

ALEXANDER B. GUTMAN, A.B. (Cornell, 1923), A.M. (Cornell, 1924)

*Zoology and Entomology*

EDWIN EARLE HONEY, B.S. (Cornell, 1916)

*Plant Pathology*

JAMES ARTHUR KENNEDY, A.B. (Cornell, 1917)

*Chemistry*

ELIZABETH LORING KEYES, B.A. (Pomona College)

*Entomology and Zoology*

JAMES EDWARD KNOTT, B.S. (R. I. State College, 1920)

*Botany and Vegetable Gardening*

HIDEO KOMURO (Horticultural College of China, 1913)

*Botany*

PAUL KVAKAN, Engineer in Agr. (Royal Higher Agr. College, Kri-  
zevca, Jugoslavia), Ph.D. (Cornell, Feb., 1924)

*Plant Breeding*

BARBARA MCCLINTOCK, A.B. (Cornell, 1923)

*Botany*



- FLORENCE MARIE MEARS, A.B. (Goucher College, 1917)  
*Mathematics*
- JOHN PAUL NAFE, A.B. (Colorado, 1911), Ph.D. (Cornell, 1924)  
*Psychology*
- ALLAN GOODRICH NEWHALL, B.S. (Univ. of Minnesota, 1918)  
*Plant Pathology*
- CHARLES VICTOR NOBACK, D.V.M. (Cornell, 1911)  
*Comparative Pathology and Biochemistry*
- BRADFORD NOYES, JR., B.S. (West Virginia, 1920), M.S. (Cornell, 1922)  
*Physics*
- KATHERINE ELIZABETH O'BRIEN, A.B. (Bates College, 1922)  
*Mathematics*
- ELIAS H. PANGANIBAN, B.Agr. (Univ. of Philippines, 1915), B.S.A. (Univ. of Philippines, 1920), M.S. (Univ. of Philippines, 1921)  
*Agronomy*
- J. AUGUSTE PEPIN, B.L. (Laval Univ., Quebec, 1914), B.S. (same, 1916), B.S.A. (same, 1919)  
*Agronomy*
- EARLE KEITH PLYLER, A.B. (Furman College, 1917), M.A. (Furman, 1918)  
*Physics*
- WALTER VAN PRICE, B.S. (Cornell, 1920), M.S. (Cornell, 1921)  
*Dairy Industry*
- ARCHIE HUNT ROBERTSON, B.S. (Cornell Univ., 1920)  
*Dairy Industry*
- THERESA MARIAN ROBINSON, A.B. (Pomona, 1922), A. M. (Pomona, 1923)  
*Entomology and Zoology*
- MAGNUS GEORGE SCHECK, A.B. (Rochester, 1920), A.M. (Princeton, 1922)  
*Psychology*
- LELAND SPENCER, B.S. (Cornell, 1918), Ph.D. (Cornell, 1923)  
*Farm Management and Agric. Economics*
- RUTH N. ST. JOHN, A.B. (Cornell, 1923)  
*Geology*
- ANDREW DILLARD SUTTLE, B.S. in Agr. (Miss. A. and M., 1918), M.S. in Agr. (Cornell, 1921), Ph.D. (Cornell, 1924)  
*Plant Breeding*
- YAKAYOSHI TANAKA, B.S. (Agr. Coll. Wakayama-Keu, Japan), M.S. (Cornell, Feb., 1924)  
*Entomology and Zoology*
- DONALD STUART WELCH, B.S. (Univ. of Maine, 1917), M.A. (Harvard, 1921)  
*Plant Pathology*
- FRANK WILCOXON, B.S. (Penn. Military, 1917), M.S. (Rutgers, 1921)  
*Chemistry*

JANET AGNES WILLIAMSON, A.B. (Brown, 1918), A.M. (Cornell,  
June, 1923) *Histology and Embryology*  
H. E. HOWE, *Secretary*

## YALE

## MEETINGS

During the year meetings were held as follows:

November 14, 1923, "Experiences of a Tax Expert in South America," Professor Fred R. Fairchild.

December 5, 1923, "The Nitrogen Problem," Professor Harry E. Curtis. "A Brief Description of the Sterling Chemistry Laboratory," Professor John Johnston.

January 16, 1924, "Gas Hazards in Modern Life," Professor Vandell Henderson.

January 30, 1924, "The National Forest Policy," Professor Henry S. Graves, Dean of the Yale School of Forestry. "The Role of Yale in Forestry," Professor H. H. Chapman.

February 27, 1924, Business meeting for the election of members and associates.

March 15, 1924, Annual initiation and banquet.

March 25, 1924, "A Forecast of the Future of American Railroads," Professor Winthrop M. Daniels.

April 15, 1924, "The Relation of Surgery to Science," Professor S. C. Harvey. "Brief Description of Sterling Hall of Medicine," Professor M. C. Winternitz, Dean of the Yale School of Medicine.

May 6, 1924, Public Meeting. "The Hawaiian Volcano Observatory and the Sakurajima Eruption and the Burning of Tokyo City," illustrated by motion pictures.

May 15, 1924, Annual Meeting. Address by Professor L. F. Rettger, "Our Invisible Friends."

Thirty members and twenty associates were elected and initiated. President S. J. Record conducted the initiation and the address to the initiates was delivered by Professor Edwin Grant Conklin, Professor of Biology at Princeton University.

Following the initiation the Thirtieth Annual Banquet was held. The toastmaster was Professor Ralph Henry Gabriel. Professor Edward Bliss Read represented Phi Beta Kappa, Mr. Lucius Aurelius Bigelow represented the Brown Chapter, Professor Herbert Hie Whetzel, represented the Cornell Chapter, John Joseph Lincoln

represent  
Ruth A.  
Graves,  
At the  
for 1924  
President  
Vice-Pres  
Treasurer  
Secretary

BENJAMIN  
HAROLD  
ROBERT  
JAMES C.

GLADYS  
ROBERT  
ERLING C.  
BEULAH  
DONALD  
JAMES G.  
WALDO S.  
WILLIAM

JOHN M.

represented the undergraduate initiates. Other speakers were Miss Ruth Alline Guy, Instructor in Pediatrics, and Professor Henry S. Graves, Provost of the University.

At the Annual Meeting of May 15 the following officers were elected for 1924-25:

*President*, H. S. BURR, Asst. Professor of Anatomy

*Vice-President*, C. R. LONGWELL, Asst. Professor of Geology

*Treasurer*, F. W. KEATOR, JR., Instructor in Mechanical Engineering

*Secretary*, S. R. BRINKLEY, Asst. Professor of Chemistry

## INITIATES

## MEMBERS

## FACULTY

BENJAMIN B. GOTTSBERGER, E.M.    MAXWELL LEAR, M.D.

HAROLD M. MARVIN, M.D.    THEODORE T. MCCROSKY, B.S.

ROBERT K. WARNER, E.M.    THEODORE S. MOISE, M.D.

JAMES C. FOX, JR., M.D.    HAROLD A. BULGER, M.D.

## RESEARCH FELLOW

ELIZABETH STUART GATEWOOD, PH.D.

## GRADUATE SCHOOL

GLADYS A. ASLOW, M.A.    GEORGE J. HUCKER, M.A.

ROBERT K. BURNS, JR., B.A.    WILLIS R. HUNT, M.S.

ERLING CHRISTOPHERSEN, PH.B.    FREDERIC W. KEATOR, JR., M.S.

BEULAH P. ENNIS, B.A.    JAMES G. MCALPINE, M.A.

DONALD D. FOSTER, B.S.    RALPH E. MONTONNA, B.S.

JAMES GILLULY, B.S.    BERNARD E. READ, M.S.

WALDO S. GLOCK, B.A.    ALFRED S. SCHULTZ, B.S.

WILLIAM E. GREENLEAF, M.A.    ELBERT M. SHELTON, B.A.

EDWARD J. WHITTAKER, M.A.

## MEDICAL SCHOOL

JOHN M. MITCHELL, B.A.    GERARD B. ROBINSON, B.A.

## SCHOOL OF FORESTRY

ALEXANDER MICHAEL KOROLEFF, M.F.

## YALE COLLEGE

HUGH WILSON O'NEILL

## ASSOCIATES

## SENIORS IN THE SHEFFIELD SCIENTIFIC SCHOOL

THEODORE L. BATES	EDWIN H. HULL
WILLIAM E. BERGERON	HOUSTON E. LANDIS, JR.
HYMAN COHEN	JOHN J. LINCOLN, JR.
JOSEPH N. CORNELL	LEWIS M. PORTER
WILLIAM C. DOWNING, JR.	JOHN L. RADEL
HAROLD FINKELSTEIN	WILLIAM L. RICHESON, JR.
ARTHUR FLEISCHER	ERNESTO A. STELLING
HENRY E. FLYNN	JAMES S. VAN LEUVAN

## SENIORS IN YALE COLLEGE

MORGAN H. ALVORD	CLARK B. MILLIKAN
MARSHALL K. BARTLETT	AARON M. ROYAL
	PHILIP G. LAURSON, <i>Secretary</i>

## NEBRASKA

## OFFICERS ELECTED

<i>President</i>	W. L. DEBAUVERE
<i>Vice-President</i>	J. E. WEAVER
<i>Secretary</i>	E. N. ANDERSEN
<i>Treasurer</i>	M. G. GABER
<i>Councilor</i>	R. H. WOLCOTT

## MEETINGS, TOPICS AND LECTURERS

October 25, 1923, "Short Wave-Length Radiation in Therapeutics," by Dr. E. W. Rowe.

January 15, 1924, "Some Research Problems in the Manufacture of Dairy Products," by Dr. P. A. Downs.

February 12, 1924, "Oil Shales of Wyoming," by Prof. E. T. Schramm.

March 11, 1924, "The Problem of Soil Fertility in Nebraska," by Prof. J. C. Russell.

April 15, 1924, "Use of Oxygen in Metallurgy," by F. W. Davis.

May 13, 1924, "Sunlight, the Prime Mover of Civilization," by Dr. Herman A. Spoehr.

# CHAPTER REPORTS

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## MEMBERS ELECTED

### ALUMNI

ELLERY DAVIS	
JOHN LATENSER, JR.	
EDWARD W. ROWE	
ALICE M. ANDERSEN	<i>Botany</i>
FRANK W. DAVIS	<i>Mechanical Engineering</i>
DONALD B. DOW	<i>Chemistry</i>
GLENN V. PICKWELL	<i>Mechanical Engineering</i>

### FACULTY

MORRIS I. EVINGER	<i>Applied Mechanics</i>
BERNARD C. HENDRICKS	<i>Chemistry</i>
FRANK E. MUSSEHL	<i>Agr. Chemistry</i>

### PROMOTIONS

EDWIN BARTUNEK	<i>Electrical Engineering</i>
HARVEY J. COTTLE	<i>Agronomy</i>
WILLIAM H. FOXWELL	<i>Mechanical Engineering</i>
KATHERINE A. WOLFE	<i>Botany</i>

### GRADUATES

CLYDE B. BENNETT	<i>Anatomy</i>
MELVIN W. BINGER	<i>Physiology and Pharmacy</i>
LAWRENCE R. CUSTER	<i>Pathology</i>
GLEN W. GOLDSMITH	<i>Botany</i>
LALAND P. HAWKINS	<i>Physiology and Pharmacy</i>
EMERYS G. JONES	<i>Agronomy</i>
MILTON F. LANDWER	<i>Zoology</i>
EDWARD C. PERSONS	<i>Physiology and Pharmacy</i>
DONALD M. PILLSBURY	<i>Anatomy</i>
WILLIAM J. SHAW	<i>Pathology and Bacteriology</i>
CARROLL H. WHITNAH	<i>Chemistry</i>

## ASSOCIATES ELECTED

### GRADUATES

ALLEN E. ANDERSEN	<i>Mathematics</i>
HAROLD L. BEDELL	<i>Chemistry</i>
GEORGE W. BOWERS	<i>Zoology</i>

EDGAR J. BOSCHULT  
 RUPERT A. CHITTICK  
 JAMES H. DORSEY  
 C. M. DOWNES  
 DOROTHY W. DUFF  
 JULIA JOYCE HARPER  
 JAMES A. MACNAB  
 WILLIAM G. MCRUER  
 EARL P. MARTINSON  
 DAGGMAR PETERSON  
 ALVIN J. PINCKNEY  
 EUNICE E. WHITWER  
 HENRY J. WING

## SENIORS

ARTHUR P. ALLISON  
 GERALD M. ALMY  
 ALVIN W. BRUST  
 GEORGE L. BURLEIGH  
 DORAH BURNELL  
 JACOB H. GABLE  
 DAVID HALBERSLABEN  
 FRANK V. HRANAC  
 HERLUF P. NIELSEN  
 RALPH F. NIELSEN  
 GEORGE E. READ  
 CARL E. ROSENQUIST  
 EDITH SAAL  
 HENRY A. SARGENT  
 JOHN C. SCHMIDT  
 EDMUND F. SLATTERY  
 GLEN STRINGFIELD  
 LLOYD P. SHILDNECK  
 GEORGE F. SPRAGUE  
 ROLLAND STURM  
 RALPH F. TEFFT  
 GRACE F. THOMAS  
 RUTH TROTT  
 EDGAR C. TULLIS  
 RUTH J. VERNON

Chemistry  
 Physiology and Pharmacy  
 Chemistry  
 Mechanical Engineering  
 Botany  
 Botany  
 Zoology  
 Agronomy  
 Mathematics  
 Zoology  
 Agr. Chemistry  
 Zoology  
 Chemistry

Geology  
 Physics  
 Civil Engineering  
 Chemistry  
 Chemistry  
 Astronomy  
 Chemistry  
 Electrical Engineering  
 Mechanical Engineering  
 Chemistry  
 Physics  
 Agronomy  
 Mathematics  
 Civil Engineering  
 Civil Engineering  
 Chemistry  
 Agronomy  
 Electrical Engineering  
 Agronomy  
 Applied Mechanical  
 Chemistry  
 Chemistry  
 Mathematics  
 Plant Pathology  
 Botany

EUGENE

President

Vice-Pre

Secretary

Treasurer

October

Plagues

January

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May 8

May 2

of Stellar

HARRY F

FREDERIC

GLEN W

WILLIAM

PERCY W

CHARLES

WAID W

FRED TW

ARTHUR

ANDREW

TADASHI

GEORGE

SIANG CE

JOHN MO

LLOYD C

ALBERT N

EUGENE L. WHITE

*Electrical Engineering*E. N. ANDERSEN, *Secretary*

## OHIO

## OFFICERS ELECTED

*President*

D. J. DEMOREST

*Vice-President*

C. A. WRIGHT

*Secretary*

C. H. KENNEDY

*Treasurer*

F. H. ENO

## MEETINGS, TOPICS AND LECTURERS

October 30, 1923, Sir Arnold Theiler, K.C.M.G., "The Animal Plagues of South Africa."

January 15, 1924, Dr. E. V. McCollum, "Diet and Human Efficiency."

May 8, 1924, Professor D. J. Demorest, "The Gas Situation."

May 23, 1924, Professor H. N. Russell, "Modern Interpretation of Stellar Spectra."

## MEMBERS ELECTED

## FACULTY

HARRY ELLSWORTH NOLD

*Mine Engineering*

FREDERICK WALTER IVES

*Agricultural Engineering*

GLEN WILLIAM MCCUEN

*Agricultural Engineering*

WILLIAM AUGUST MUELLER

*Metallurgy*

PERCY WRIGHT OTT

*Mechanics*

## STUDENTS

CHARLES WAYNE DANCER

*Astronomy*

WAID WRIGHT TUTTLE

*Physiology*

FRED TWICHELL HEATH

*Ceramics*

ARTHUR VAN HENRY

*Ceramics*

ANDREW IRVING ANDREWS

*Bureau of Mines*

TADASHI FUJIMOTO

*Physics*

GEORGE LEONARD BUSH

*Chemistry*

SIANG CEH SUNG

*Chemistry*

JOHN MOUK ORT

*Chemistry*

LLOYD CLAYTON SWALLEN

*Chemistry*

ALBERT MITCHELL CLIFFORD

*Chemistry*



RAYMOND EUGENE SCHAAD  
 GEORGE MELVILLE KARNS  
 FRANK GILBERT KEENAN  
 ROBERT ARTHUR HEFNER  
 WARREN PAPPENO SPENCER  
 ALDEN EARL NOBLE  
 DAVID FRANKLIN MILLER  
 JOSEF NISSLEY KNULL  
 MARION WILLIAM CASKEY  
 ADONIS A. MATHEWSON  
 FLOYD ALONZO MCCLURE  
 IVAN ERNEST MASSAR

Chemistry  
 Chemistry  
 Chemistry  
 Zoology and Entomology  
 Zoology and Entomology  
 Zoology and Entomology  
 Zoology and Entomology  
 Zoology and Entomology  
 Zoology and Entomology  
 Zoology and Entomology  
 Botany  
 Botany

## ASSOCIATES

RAYMOND CHESTER COULSON  
 JOHN M. HENDRICKSON  
 WALTER MCKINNIE HUGHES  
 MARION WATERMAN BOESSEL  
 HOMER SCOTT SWINGLE  
 MELVILLE LAWRENCE WOLFROM  
 EDNA CLARE MILLONIG  
 PAUL LELAND KIRK  
 CHARLES TRUMAN HARMAN  
 JOSEPH KOFFOLT  
 GEORGE WILLIAM RUHL  
 ALBERT ROUTA  
 VIRGIL LELAND HANSLEY  
 CHARLES CICERO CLARK  
 JOHN EDWARD FARGUS  
 HAROLD PHILIP KLUG  
 PAUL GRIFFITH EDWARDS  
 ROBERT OLWINE LOOMIS  
 BYRON DAVID REDDING  
 IRVING ADOLPH HEEB  
 ROBERT S. WINBIGLER  
 WILLIAM PHILIP COOK  
 SADI SANTINI  
 RALPH L. BOYER  
 LEWIS MILLER HEADLEY  
 HENRY CHARLES ROSE

Veterinary Medicine  
 Veterinary Medicine  
 Ceramics  
 Zoology and Entomology  
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 Mechanical Engineering  
 Mechanical Engineering  
 Mechanical Engineering  
 Mine Engineering

JOHN P.  
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 CHARLES  
 JOHN AL  
 ERNEST  
 MARK S

GRACE M.  
 HOWARD  
 HOWARD  
 FRANK B.  
 ERWIN F.  
 WILLIAM  
 JAMES H.

JAMES EL

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 of metallic



JOHN PAUL RANNELLS	<i>Civil Engineering</i>
LESTER LIGGETT DICKSON	<i>Civil Engineering</i>
OLIN BYRD STOUT	<i>Civil Engineering</i>
CHARLES STEWART ROACH	<i>Civil Engineering</i>
JOHN <sup>*</sup> ALLEN ROUSCULP	<i>Civil Engineering</i>
ERNEST FREDERICK KEYERLEBER	<i>Civil Engineering</i>
MARK SCOTT BAILEY	<i>Civil Engineering</i>

## MEMBERS ELECTED DEC., 1923

## ACTIVE

GRACE MARIE BAREIS	<i>Mathematics</i>
HOWARD D. MINCHIN	<i>Applied Optics</i>
HOWARD EARL FRITZ	<i>Chemistry</i>
FRANK BARNHART GULLUM	<i>Chemistry</i>
ERWIN FOSTER LOWRY	<i>Physics</i>
WILLIAM JAY SCHOENE	<i>Zoology and Entomology</i>
JAMES H. WILSON	<i>Chemistry</i>

## ASSOCIATE

JAMES ELIAS WEBSTER	<i>Chemistry</i>
C. H. KENNEDY, Secretary	

## BROWN

## MEETINGS

Five scientific meetings were held as follows:

On October 15, Professor E. K. Strechan of Brown University gave an address on recent developments in physical chemistry.

An open meeting on November 21 was addressed by Professor C. F. Kemp of Columbia University on the subject of "Mining Geology and Economics."

On January 17, Professor F. P. Gorham of Brown University told of the anti-mosquito work done by the City of Providence.

The initiation and banquet were held on March 12. The scientific address was delivered by Professor W. H. Snell of Brown University, on the subject of the effect of lightning on trees.

The annual business meeting on May 15 was followed by a lecture by Professor C. A. Kraus of Clark University on the nature of metallic substances.

## MEMBERS

## GRADUATES

RAYMOND LIVINGSTON BARNEY, M.S.

*Research in Propagation of Fresh Water Mussels and Fishes*

MYRON URBAN LAMB, Ph.B.

*Research in Forest Pathology*

## ASSOCIATES

## GRADUATES

EDMUND GUSTAVE ERIC ANDERSON, A.B.

*Biology*

GLADYS MARGARET BAUER, Ph.B.

*Biology*

ROBERT LINCOLN EATON, Ph.B.

*Biology*

ARTHUR OWEN HICHSON, A.B.

*Mathematics*

CELIA KAUFMAN, A.B.

*Biology*

MANDANA MARSH, A.B.

*Biology*

EVELYN PRESCOTT WIGGIN, A.B.

*Mathematics*

## UNDERGRADUATES

DORIS ANTHONY

LOUIS EDMUND HATHAWAY, JR.

WALTER BERNARD

MALCOM ALLAN JUNCES

RICHARD PANG-NIEN BIEN

MAY BAGGOT KELLEY

EDWARD RANGER COOP

JOHN DURWARD MINER, JR.

ROBERT ALVAN GOODELL

CHARLOTTE TEMPEST PERRY

GEORGE EDWIN HAM

GEORGE WHITE RICHARDSON

GRACE ELEANOR HANSON

MARJORIE CLARISSA ROACH

VERA IRENE SMITH

W. M. FAUNCE, *Secretary*

## CALIFORNIA

NEW MEMBERS WERE ELECTED MARCH, 1924

## FULL MEMBERSHIP

## FACULTY

FRANZEN, RAYMOND HUGH *Asst. Prof. of Education and Psychology*

KELLOGG, WILFRED HARVEY

*Asst. Clinical Prof. of Preventive Medicine and Hygiene*

KELLY, FRANK LEWIS

*Asst. Prof. of Public Health Administration, Lectr. in Preventive Medicine and Hygiene*KUTZMANN, ADOLPH A. *Asst. in Urology, Univ. of Calif. Hospital*

# CHAPTER REPORTS

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LEGGE, DR. ROBERT THOMAS

*Prof. of Hygiene and University Physician*

MARTIN, JAMES C.

*Instr. in Plant Nutrition*

MERRILL, ELMER D.

*Professor of Agriculture and Dean of the College of Agriculture*

SIMPSON, MIRIAM ELIZABETH

*Instr. in Anatomy*

SMITH, ELIZABETH H.

*Asst. Prof. of Plant Pathology*

REICH, WILLIAM WALTER

*Instr. in Bacteriology*

TUCKER, RICHARD HAWLEY

*Astronomer, Lick Observatory, Mt. Hamilton, Cal.*

WEEKS, WALTER S.

*Assoc. Prof. of Mining*

## RESEARCH ASSOCIATES

KNOBEL, MAX

*Research Assoc. in Chemistry*

MILLER, HARRY EAST

*Research Assoc. in Chemistry*

SMITH, DAVID F.

*Research Assoc. in Chemistry*

THIELE, HOLGER

*Research Assoc. in Theoretical Astronomy*

## GRADUATE STUDENTS

BALL, GORDON HAROLD

*Zoology Dept.*

BRECKENRIDGE, GERALD FREDERICK

*Chemistry*

BYERLY, PERRY, JR.

*Physics*

CARPENTER, EDWIN F. S.

*Astronomy*

GREENBERG, DAVID MORRIS

*Biochemistry*

HALL, RICHARD P.

*Zoology*

HULIN, CARLTON D.

*Geology*

KESSEL, DR. JOHN FLENNIKEN

*Zoology*

REDFIELD, MISS HELEN

*Zoology*

SCHENCK, HUBERT G.

*Paleontology*

SIMONS, JOSEPH H.

*Chemistry*

SPENCER, HUGH MILLER

*Chemistry*

STAFFORD, DOUGLAS DANIEL

*Bacteriology*

VANSELOW, ALBERT P.

*Chemistry*

WARK, IAN W.

*Chemistry*

YÜ, CHING-SUNG

*Astronomy*

## OTHERS

HOR, KWEN SHWEN (DR.)

*Agriculture*

## ASSOCIATE

## GRADUATE STUDENTS

ASHLEY, MISS MURIEL F.

*Physics*

ASTON, JOHN GELDART	Chemistry
BRAKEFIELD, JAMES LUTHER	Biochemistry
BROCK, LOIS H.	Anatomy
BROWN, HUGH MONROE	Physics
CARLYLE, HELEN F.	Genetics
CHINN, ALEXANDER BALFOUR	Anatomy
CLYDE, HARRY SCHLEY	Civil Engineering
CRAIG, RODERICK	Chemistry
EDDIE, BERNICE URSULA	Hygiene
DEMING, MISS JEAN MARJORIE	Anatomy
ERICKSON, STATIE ESTELLE	Household Science
EWING, SCOTT PRESTON	Physics
FLOWER, CHARLES F.	Anatomy
JACK, RALPH ALEXANDER	Physics
JONES, JENKIN WILLIAM	Agronomy
GIAUQUE, HARRY A.	Chemistry
HAZZARD, ROY T.	Geology
HERRON, MISS EUGENIA LUCILLE	Bacteriology
HODGSON, FRANK RICE	Pomology
HUDDLESTON, MISS JEAN	Physics
HURST, CLARENCE THOMAS	Zoology
KIRBY, HOWARD, JR.	Zoology
LUCIA, MRS. E. L.	Hygiene
MACNAIR, VERA	Household Science
MCCAY, CLIVE MAINE	Biochemistry
MARSHALL, LAURISTON	Physics
MILLZNER, RAYMOND J.	Bacteriology
MORRIS, SADIE OCKEY	Household Science
NASH, CLARENCE	Physics
OHN, ASTA	Household Science
OSBURN, DOROTHY FRANCES	Household Science
POTTER, ALICE	Hygiene
PRICE, ROBERT LOUIS	Physics
ROMIG, HARRY GUTELIUS	Physics
SNODDY, VIRGINIA CROFT (MRS.)	Household Science
SNYDER, WILLIAM PERCIVEL	Genetics
STACY, MISS CATHERINE SLOCUM	Household Science
STRONG, LEON HENRY	Zoology
STRONG, WILLIAM DUNCAN	Anthropology
TOUBAS, BENJAMIN	Biochemistry

## CHAPTER REPORTS

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UHLEMAYER, MISS BERTHA	Zoology
URQUHART, MISS CHRISTINE	Chemistry
VIETTI, WILLIAM VICTOR	Chemistry
WALKER, ALBERT T.	Anatomy
WINDENBURG, DWIGHT F.	Physics

### UNDERGRADUATE STUDENTS

ALPEN, RICHARD MYLES	Chemistry
BASCO, MIGUEL ANTONIO	Mathematics
BEST, NELSON L.	Mechanics
COSTA, JOSEPH DAVID	Civil Engineering
FOLSOM, LEON T.	Mechanics
GRAESER, JAMES B.	Anatomy
HALFORD, JOSEPH OLNEY	Chemistry
HAMMATT, HALLETT BARKER	Mathematics
HARDY, NORMAN	Geology
HOWARD, MISS HILDEGARDE	Zoology
HOWITT, BEATRICE FAY	Anatomy
KELLOGG, LEONARD FIELD, JR.	Agriculture
LANDIS, QUICK	Chemistry
LOESERMAN, MILTON MEYER	Chemistry
MALLOCH, MRS. FRANCES WATSON	Genetics
MCCONNELL, GRACE LOUISE	Biochemistry
ROESSLER, EDWARD BIFFER	Mathematics
MORGEN, RALPH ALEXANDER	Chemistry
PENNEBAKER, EDWIN NOEL	Geology
POST, VALERIA (MISS)	Chemistry
RANKIN, LOWELL HARVEY	Chemistry
RICE, OSCAR KNEFLER	Chemistry
SCARFE, STANLEY W.	Mechanics
SHEARER, EDWIN MORRILL	Zoology
SMILEY, CHARLES H.	Mathematics
STAHL, LEONARD ELMER	Chemistry
SUTTON, JOHN GUICE	Civil Engineering
WARD, MORGAN	Mathematics
WASHBURN, HAROLD W.	Mechanics

RAYMOND T. BIRGE, *Secretary*

### ILLINOIS

#### MEETINGS

The Illinois chapter has just closed a year of something more

than ordinary activity and interest. Ten meetings have been held, with the programs given below:

October 17, "Stresses in Granular Materials," by Dean M. S. Ketchum, College of Engineering, University of Illinois.

November 5, "Phosphorus Deficiencies in Animals," by Sir Arnold Thieler, Director of Veterinary Education and Research, Union of South Africa.

December 19, "Some Cell Structures and Their Functions," by Professor C. F. Hottes, Botany Department, University of Illinois.

January 8, "What We Know about Nutrition, and How We Found It Out," by Professor E. V. McCollum, Johns Hopkins University.

January 16, Annual Dinner. Address: "Some Things We Know about the Tonsils," by Dr. D. J. Davis, Head of the Department of Pathology and Bacteriology, College of Medicine, University of Illinois, Chicago, Ill.

February 13, "Plumbing Tests," by Professor H. E. Babbitt, Department of Municipal and Sanitary Engineering, University of Illinois; "Hot Water Heating," by Professor F. E. Giesecke, Head of Engineering Research, University of Texas.

March 19, "Methods of Warfare against Insects," by Professor C. L. Metcalf, Head of Entomology Department, University of Illinois.

April 23, "Objective of Highway Research," by Professor W. K. Hatt, Head of the School of Engineering, Purdue University.

April 25, Joint Meeting with Phi Beta Kappa. Address: "Science and the Humanities," by Dean Wilbur Cross, Yale University.

May 14, "Spatial Orientation of Men and Animals," by Professor Madison Bentley, Psychology Department, University of Illinois.

The following members were elected December 19, 1923, and initiated January 8, 1924:

#### ASSOCIATES

##### FROM THE SENIOR CLASS

COONS, CHARLES CURTIS	<i>Chemistry</i>
GARDNER, FRANKLIN T.	<i>Chemistry</i>
HILGARD, ERNEST ROPIEQUET	<i>Chemistry</i>
HUBBARD, KARL HAMMOND	<i>Physics</i>
McMUNN, RICHARD LACEY	<i>Botany</i>

# CHAPTER REPORTS

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MILNER, REID T.	<i>Chemistry</i>
RHOADES, ELIZABETH	<i>Psychology</i>
SHAH CHANDOOLAL NANCHAND	<i>Chemistry</i>
SOUKUP, ROY	<i>Chemistry</i>
WEEDON, AMY GERTRUDE	<i>Botany</i>

## FROM THE GRADUATE SCHOOL

BAKER, JOHN BABCOCK	<i>Mech. Eng. and Chemistry</i>
BASSETT, CHARLES FERNANDO	<i>Geology</i>
BENTON, CURTIS	<i>Entomology</i>
BUCK, RUTH	<i>Zoology</i>
BUTLER, COURTLAND LIVINGSTON	<i>Chemistry</i>
*CAUSEY, DAVID	<i>Zoology</i>
COLMAN, WALLACE	<i>Entomology</i>
DECOURSEY, RUSSELL	<i>Entomology</i>
DORMAN, HENRY PICKETT	<i>Zoology</i>
FURROW, CLARENCE LEE	<i>Zoology</i>
GROVES, ROBERT LEROY	<i>Pathology and Bacteriology</i>
HAFENRICHTER, ATLEE LAWRENCE	<i>Botany</i>
PACKARD, CHARLES EARL	<i>Zoology</i>
STOUT, GILBERT LEONIDAS	<i>Botany</i>

## MEMBERS FROM THE GRADUATE SCHOOL

GALLAHER, WM. U.	<i>Chemistry</i>
HARTWELL, RHODA ALICE	<i>Zoology</i>
ROBERTSON, ROBERT CRAWFORD	<i>Pathology</i>
SPENCER, GEORGE JOHNSTON	<i>Entomology</i>

## MEMBERS FROM THE FACULTY

COHEN, SEYMOUR J.	<i>Instructor, Pharmacology</i>
H'DOUBLER, FRANCIS TODD	<i>Instructor, Pathology</i>
MYLREA, THOMAS DOUGLAS	<i>Asst. Prof., Struct. Eng.</i>
NEVILLE, HARVEY A.	<i>Instructor, Chemistry</i>
STANSFIELD, JOHN	<i>Asst. Prof., Geology</i>
TRACY, LOUIS D.	<i>Supt., U. S. Bur. of Mines Expt. Sta.</i>
WANLESS, HAROLD ROLLIN	<i>Instructor, Geology</i>

\* Not initiated.



The following members were elected April 23, 1924, and initiated May 14, 1924:

## ASSOCIATES

## FROM THE SENIOR CLASS

ADAMS, AUBREY BRUCE	Chemistry
BOEKER, VICTOR WILLIAM	Ceramics
DRYDEN, LUCILE	Mathematics
FELLOWS, ROGER LEE, JR.	Ceramics
FUDGE, JOSEPH FRANKLIN	Agronomy
GRIFFIN, EDWIN DAVID	<i>Farm Organization and Management</i>
HARDING, H. GORDON	Bacteriology
HARKNESS, ROY WENDELL	Chemistry
HENNINGER, GEORGE COPELAND	Chemistry
HIGGINS, FRANCES MARY	Bacteriology
HILL, AUBREY DELOSE	Chemistry
HUGH, JOHN HERMAN	<i>Dairy Husbandry</i>
HYDE, ARTHUR SIDNEY	Zoology
KORITZ, LLOYD AMOS	Horticulture
LIBMAN, MINNA ANDREA BERYL	Psychology
MCCLELLAND, MILBURN	<i>Dairy Husbandry</i>
MICHAEL, FRANK LESTER	Ceramics
MILLS, JOHN HAROLD	Bacteriology
MOTSCHMAN, ALBERTA VIOLA	Chemistry
NEAVE, SIDNEY LIONEL	Chemistry
NEWELL, HORACE MEAD	Horticulture
OBERHOLTZER, KENNETH EDISON	<i>Dairy Husbandry</i>
PUNKE, HAROLD HERMAN	Agronomy
SMITH, BRYAN WALDO	Horticulture
SOWERS, NELSON EVERETT	Physics
SPENCE, LEROY U.	Chemistry

## FROM THE GRADUATE SCHOOL

BLACK, HAROLD LISLE	Mathematics
BRICKETT, EDWARD MONTGOMERY	<i>Th. and App. Mech.</i>
CONKWRIGHT, NELSON B.	Mathematics
ESSEX, HIRAM	Zoology
HARRIS, JOSEPH ALLEN	Chemistry



# CHAPTER REPORTS

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HOPKINS, CHARLES  
 HUNTER, GEORGE  
 JONES, GEORGE TALLMAN  
 KATTI, NUPPANUNA CHANIVIRAPPA  
 LINDSEY, GLEN AVEN  
 MANDERSON, MARGARET E.  
 NOLLER, CARL ROBERT  
 NOTHENBERG, ESTHER MERCEDES  
 OGG, FRANK C.  
 PENFOUND, WILLIAM THEODORE  
 SHIVE, ROY ALLEN  
 STAUFFER, RUSSELL SCOTT  
 STRICKHAUSER, SHERMAN ISRAEL  
 WELCH, WINONA HAZEL

Mathematics  
 Zoology  
 Botany  
 Chemistry  
 Animal Husbandry  
 Zoology  
 Chemistry  
 Zoology  
 Mathematics  
 Botany  
 Chemistry  
 Agronomy  
 Chemistry  
 Botany

## FROM THE GRADUATE SCHOOL

ANDREWS, JOHN WENDELL  
 BLAIN, WALTER LEROY  
 CALVERY, HERBERT ORION  
 CARMAN, MAX G.  
 CORLEY, RALPH CONNER  
 COX, GERALD JUDY  
 DREGER, EMIL EDWARD  
 DURST, CHARLES ELMER  
 FURROW, CLARENCE LEE  
 HECKEL, HERMAN CONRAD NIES  
 HYDE, ELIZABETH CHARLOTTE  
 KOTEN, IRVIN ALVIN  
 LEICHSENRING, JANE MARIE  
 LOUGEE, FLORA MARION  
 MOOSE, JOSEPH EUGENE  
 MUNN, LOTTIE ELLA  
 NORTH, EDWARD OSCAR  
 PIERCE, JOHN STANTON  
 RASSWEILER, CLIFFORD FRED  
 THOMPSON, DAVID HIRAM  
 UYEL, NAO  
 WALLACE, GEORGE IRA  
 WOOD, LYMAN JOY

Chemistry  
 Botany  
 Chemistry  
 Mathematics  
 Chemistry  
 Chemistry  
 Chemistry  
 Horticulture  
 Zoology  
 Chemistry  
 Chemistry  
 Chemistry  
 Physiology  
 Chemistry  
 Chemistry  
 Chemistry  
 Chemistry  
 Chemistry  
 Chemistry  
 Zoology  
 Chemistry  
 Bacteriology  
 Chemistry

## MEMBERS FROM THE FACULTY

ELDRIDGE, ARTHUR GRANVILLE  
LIBMAN, EARL EMANUEL

*Instructor, Photography*  
*Instructor, Mathematics*

The following officers have been elected for the school year 1924-25: *President*, H. J. VAN CLEAVE; *Vice-President*, J. W. LLOYD; *Secretary*, W. H. RAYNER; *Treasurer*, J. M. STETSON.

J. H. REEDY, *Secretary*

## CASE

## OFFICERS ELECTED

*President*  
*Vice-President*  
*Secretary*  
*Treasurer*

JASON J. NASSAU  
ROY D. HUXLEY  
FRED L. PLUMMER  
THEODORE M. FOCKE

## MEETINGS

January 16, 1924, "Modern Methods of Research and What They Have Accomplished," by Mr. John Mills, Personnel Director of the American Bell Telephone Company.

March 28, 1924, A joint meeting with the Cleveland Astronomical Society. "The Infinity of the Universe," by Dr. F. R. Moulton, Professor of Astronomy at the University of Chicago.

May 26, 1924, Ward T. Van Orman, M.E., of the Goodyear Tire and Rubber Company, spoke on aeronautic research and told of his experience as pilot of the winning balloon in the recent national free balloon race.

## MEMBERS ELECTED

## GRADUATE STUDENTS

RENE PIERRE HENNES (E.M. 1923 University of Louvain, Belgium)  
*M. S. in Metallurgical Engineering*

## SENIORS

HENRY POWELL DAVIS, JR.  
JOHN JOSEF GREBE  
EDWARD CARL KREKEL  
HAROLD GEORGE LEITER  
LOUIS J. MCBANE

*Electrical Engineering*  
*Physics*  
*Metallurgical Engineering*  
*Mechanical Engineering*  
*Physics*

## CHAPTER REPORTS

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RICHARD MERRILL PLUMMER	<i>Civil Engineering</i>
HOWARD ARNER PRITCHARD (A.B. Hiram College, 1922)	<i>Physics</i>
WENDELL PHILLIPS SMITH (B.S. Grove City College, 1922)	
	<i>Chemical Engineering</i>
LEROY HEPBURN STEWART	<i>Civil Engineering</i>
ARTHUR SCOTT WEYGANDT	<i>Chemical Engineering</i>
HARLAND GEORGE WOOD	<i>Civil Engineering</i>
ROBERT WILLIAM WORLEY	<i>Mechanical Engineering</i>
JOSEPH LANE WRIGHT	<i>Civil Engineering</i>
KARL W. RAUSCH, <i>Secretary</i>	

## COLORADO

### OFFICERS ELECTED

<i>President</i>	W. C. HUNTINGTON
<i>Vice-President</i>	FRANK E. E. GERMANN
<i>Secretary</i>	CHARLES F. POE
<i>Treasurer</i>	FRANK S. BAUER

### MEETINGS

Meetings were held as follows:

"Field Research on Siberian Fossils," Prof. T. D. A. Cockerell.

"Recent Progress in Physiology," Dr. Maurice H. Rees.

Report of Meeting of S. W. Division for Advancement of Science,  
Prof. Frank E. E. Germann.

"Research on Mitochondria," Dr. Ivan E. Wallin.

### MEMBERS ELECTED IN FEBRUARY, 1924

M. C. Hylan	W. H. Sheldon
CARL S. GILBERT	J. W. VANDERWILT

### ASSOCIATES ELECTED IN FEBRUARY, 1924

JOHN C. BAILER	JOHN E. HUPP
CARL J. KLEMME	W. K. NELSON
EVELYN NEWCOMBER	M. P. BEAM

### MEMBERS ELECTED IN JUNE, 1924

M. SCOTT CARPENTER	L. A. MACCOLL
EMMETT B. CARMICHAEL	JESSIE R. KINGERY
HERBERT J. GILKEY	

## ASSOCIATES ELECTED IN JUNE, 1924

ARVID BAKER  
VERA BROXON

ELBERTA CRAIG  
PAUL F. SHOPE

CHARLES F. POE, *Secretary*

## NORTH CAROLINA

## OFFICERS ELECTED

*President* DR. JAMES MUNSIE BELL, Professor of Chemistry  
*Vice-President* DR. ROBERT E. COKER, Professor of Zoology  
*Secretary-Treasurer*  
THORNDIKE SAVILLE, Professor of Hydraulic and Sanitary Engineering

## MEMBERS ELECTED

## ALUMNI

EDWARD J. WOOD, M.D.

*Medicine*

## FACULTY

HAROLD F. JANDA, B.S., C.E.

*Associate Professor of Highway Engineering*

## ASSOCIATES ELECTED

## FACULTY

F. P. BROOKS, B.S.

*Instructor in Chemistry*

## GRADUATES

R. W. BOST, B.S.  
J. H. MOURANE, B.S.  
E. D. JENNINGS, B.S.  
W. E. GILES, B.S.  
C. R. HARRIS, B.S.  
MILDRED MORSE, B.S.  
H. J. BRYSON, B.S.  
D. A. WELLS, B.S.  
W. R. EARLE, B.S.  
J. T. PENNY, B.S.  
NANNIE SMITH, B.S.

*Chemistry*  
*Chemistry*  
*Chemistry*  
*Chemistry*  
*Chemistry*  
*Chemistry*  
*Geology*  
*Physics*  
*Zoology*  
*Zoology*  
*Zoology*

## MEETINGS

Meetings were held as follows:

Sept. 19, 1923, Dr. F. P. Venable delivered a talk upon the development of research at the University, stressing particularly the work done prior to the formation of the Mitchell Society.

April 14 and 15, 1924, The annual lectures by Prof. George C. Whipple of the Engineering School, Harvard University.

May 19, 1924, The annual meeting for acting upon the reports of the committees on nominations and candidates.

June 9, 1924, The annual commencement meeting for the initiation of new members.

THORNDIKE SAVILLE, *Secretary*

## KENTUCKY

## OFFICERS ELECTED

*President*

EDWIN STANTON GOOD

*Vice-President*

JAMES BURT MINER

*Secretary*

MARSHALL NEY STATES

*Treasurer*

CHARLES STEVENS CROUSE

*Executive Committee:* W. D. FUNKHOUSER, E. S. GOOD, J. B. MINER, M. N. STATES, C. S. CROUSE, F. ELIZABETH LESTOURGEON, W. D. VALLEAU.

## MEETINGS

During the year the following meetings were held:

Nov. 9, 1923, Address: "Mineral Resources of Kentucky," C. S. Crouse, professor of metallurgy. Followed by social hour and refreshments.

Dec. 7, 1923, Address: "On a Parasite Found in the *Ligamentum nuchae* of the Horse," Dr. E. A. Caslick, assistant in veterinary science, Kentucky Experiment Station. Followed by social hour and refreshments.

Jan. 18, 1924, Address: "The Coefficients of Slip and Viscosity," M. N. States, Associate Professor of Physics. Followed by social hour and refreshments.

Mar. 3, 1924, Address: "The Calcium Problem of the Laying Hen," A. M. Peter, Professor of Soil Technology and head of the department of chemistry, Kentucky Experiment Station. Followed by social hour and refreshments.

Apr. 28, 1924, Address, "The Biology of Fresh Water Mussels," W. R. Allen, Assistant Professor in Zoology. Followed by social hour and refreshments.

May 23, 1924, Third Annual Banquet. Initiation of new members. Address to new members by Dr. William Delbert Funkhouser. Response for the new members, J. Holmes Martin. Election of officers. Address: "When the World is Full," Dr. Nevin M. Fenneman, Professor of Geology, University of Cincinnati.

H. H. DOWNING, *Secretary*

### SWARTHMORE

#### OFFICERS ELECTED

*President*

PROFESSOR GELLERT ALLEMAN

*Vice-President*

PROFESSOR LEWIS FUSSELL

*Secretary*

PROFESSOR H. JERMAIN CREIGHTON

*Treasurer*

PROFESSOR E. W. DOEBLER

#### MEETINGS

November 27, 1923, Report on the Sproul Observatory Eclipse Expedition, by Professors Miller, Marriott and Wright.

January 18, 1924, "The Origin of the Present Continents and Oceans," by Professor Spencer Trotter.

April 17, 1924, "Some Causes of Volcanic Activity," by Dr. Arthur L. Day.

May 22, 1924, "Electrolytic Waterproofing of Textile Fabrics," by Professor H. Jermain Creighton.

#### MEMBERS ELECTED

##### FACULTY

HERMANN BERNHARD, Ph.D.

##### ALUMNI

ROY LINDEN HILL

OSBORNE R. QUAYLE

BENJAMIN D. KLINE

MORRIS L. CLOTHIER

WILLIAM C. SPROUL

##### ASSOCIATES

ISAAC L. BATTIN

ALBERT J. WILLIAMS, JR.

# SIGMA XI CLUBS

NAME	PRESIDENT	VICE-PRES.	SECRETARY	TREASURER
Oklahoma....	H. L. Dodge...	V. E. Monnett.	C. J. Bollinger..	C. J. Bollinger
Arizona.....			H. B. Leonard ..	
Southern				
California....	W. L. Hardin..		P. W. Merrill...	E. E. Chandler
Duluth.....	G. E. Gold- thwaite		E. W. Kelly....	
Kansas State College.....	L. E. Call.....	J.P. Calderwood	C. W. Colver...	
Carleton Col- lege.....	A. T. Lincoln..	E. A. Fath.....	H. E. Stork....	H. E. Stork
University of Denver.....	T. R. Garth.....	R.E. Nyswander	E. A. Engle.....	W. H. Hyslop
Oregon State College.....			C. E. Thomas...	
Michigan State Col- lege.....	G. W. Bissell..	R. P. Hibbard .	R. M. Snyder..	R. M. Snyder
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